

Attorney's Docket No. 044158/273011

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Tuomanen *et al.*

Confirmation No.: 2930

Appl. No.: 10/751,702

Group Art Unit: 1645

Filed: 1/5/04

Examiner: N. Minnifield

For: A POLYPEPTIDE COMPRISING THE AMINO ACID OF AN N-TERMINAL
CHOLINE BINDING PROTEIN A TRUNCATE, VACCINE DERIVED
THEREFROM AND USES THEREOF

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97(c)**

Sir:

Attached is a list of documents on form PTO-1449. Any foreign patents or non-patent literature documents items are attached, except those that were supplied in, or cited by the Office during prosecution of, parent Application No. 09/056,019 filed April 7, 1998, now U.S. Patent No. 6,858,706. Since the benefit of this application was claimed under 35 U.S.C. 120, no copies need to be furnished in accordance with 37 C.F.R. 1.98(d); however, copies will be furnished on request.

It is requested that the Examiner consider these documents and officially make them of record in accordance with the provisions of 37 C.F.R. § 1.97 and Section 609 of the MPEP. By identifying the listed documents, Applicant in no way makes any admission as to the prior art status of the listed documents, but is instead identifying the listed documents for the sake of full disclosure.

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. § 1.97(c), before final Office Action or Allowance, whichever is earlier.

180.00 OP

In re: Tuomanen *et al.*
Appl. No.: 10/751,702
Filed: 1/5/04
Page 2

A check for the \$180.00 fee specified in 37 C.F.R. § 1.17(p) is enclosed. The Commissioner is authorized to charge any additional fee, or credit any refund, to our Deposit Account No. 16-0605.

Respectfully submitted,



Kelly J. Williamson
Patent Agent
Registration No. 47,179

CUSTOMER NO. 29312
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Raleigh Office (919) 862-2200
Fax Raleigh Office (919) 862-2260

"Express Mail" mailing label number EV913519085US
Date of Deposit January 11, 2007

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Pamela Lockley

| | | | | | |
|--|---------------|----|---|--------------------------|---------------|
| Substitute for form 1449/PTO (Revised 07/2005) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) | | | | Complete if Known | |
| | | | | Application Number | 10/751,702 |
| | | | | Filing Date | 1/5/04 |
| | | | | First Named Inventor | Tuomanen |
| | | | | Group Art Unit | 1645 |
| Examiner Name | N. Minnifield | | | | |
| Sheet | 1 | of | 1 | Attorney Docket Number | 044158/273011 |

U. S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. | Document Number Number - Kind Code (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages of Relevant Figures Appear |
|--------------------|----------|--|--------------------------------|--|---|
| | | | | | |
| | 33 | US-6,573,082 | 06-03-2003 | CHOI <i>et al.</i> | |
| | 34 | US-6,500,613 | 12-31-2002 | BRILES <i>et al.</i> | |
| | 35 | US-6,784,164 | 08-31-2004 | MASCLE <i>et al.</i> | |
| | 36 | US-6,698,369 | 02-2004 | KOENIG <i>et al.</i> | |
| | 37 | US-2002/0061545 | 05-23-2003 | CHOI <i>et al.</i> | |
| | 38 | US-2003/0059438 | 03-27-2003 | BRILES <i>et al.</i> | |
| | 39 | US-2003/0091577 | 05-15-2003 | GILBERT <i>et al.</i> | |
| | 40 | US-2003/0096950 | 05-22-2003 | TUOMANEN <i>et al.</i> | |
| | 41 | US-2003/0138447 | 07-24-2003 | WIZEMANN <i>et al.</i> | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials | Cite No. | Foreign Patent Document Country Code - Number Kind Code (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | English Language Translation Attached |
|-------------------|----------|--|--------------------------------|--|--|--|
|-------------------|----------|--|--------------------------------|--|--|--|

OTHER DOCUMENTS

| Examiner Initials* | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s) , volume/issue number(s), publisher, city and/or country where published. | English Language Translation Attached |
|--------------------|----------|---|---|
| | 42 | BROOKS-WLATER, "The <i>pspC</i> Gene of <i>Streptococcus pneumoniae</i> Encodes a Polymorphic Protein, PspC, Which Elicits Cross-Reactive Antibodies to PspA and Provides Immunity to Pneumococcal Bacteremia," <i>Infection and Immunity</i> , 1999, pp. 6533-6542, Vol. 67(12). | |
| | 43 | CHENG, Q., <i>et al.</i> , "Novel Purification Scheme and Functions for a C3-Binding Protein From <i>Streptococcus pneumoniae</i> ," <i>Biochemistry</i> , 2000, pp. 5450-5457, Vol. 39. | |
| | 44 | HOSKINS, J., <i>et al.</i> , "Genome of the Bacterium <i>Streptococcus pneumoniae</i> Strain R6," <i>J. of Bacteriology</i> , 2001, pp. 5709-5717, Vol. 183(19). | |
| | 45 | IANNELLI, F., <i>et al.</i> , "Allelic Variation in the Highly Polymorphic Locus <i>pspC</i> of <i>Streptococcus pneumoniae</i> ," <i>Gene</i> , 2002, pp. 63-71, Vol. 284. | |
| | 46 | TETTELIN, H., <i>et al.</i> , "Complete Genome Sequence of A Virulent Isolate of <i>Streptococcus pneumoniae</i> ," <i>Science</i> , 2001, pp. 498-506, Vol. 293. | |

| | |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
LEGAL02/30221320v1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Tuomanen *et al.* Confirmation No.: To be Assigned
 Appl No.: To be Assigned Group Art Unit: To be Assigned
 Filed: Concurrently Herewith Examiner: To be Assigned
 For: A POLYPEPTIDE COMPRISING THE AMINO ACID OF AN N-TERMINAL
 CHOLINE BINDING PROTEIN A TRUNCATE, VACCINE DERIVED
 THEREFROM AND USES THEREOF

COPY

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT
 CITATION UNDER 37 C.F.R. § 1.97**

Attached is a list of documents on form PTO-1449.

It is requested that the Examiner consider these documents and officially make them of record in accordance with the provisions of 37 C.F.R. § 1.97 and Section 609 of the MPEP. By submitting the listed documents, Applicant in no way makes any admission as to the prior art status of the listed documents, but is instead submitting the listed documents for the sake of full disclosure.

Any foreign patents or non-patent literature documents items are attached, except those that were supplied in, or cited by the Office during prosecution of, parent Application No. 09/056,019 filed April 7, 1998. Since the benefit of this application was claimed under 35 U.S.C. 120, no copies need to be furnished in accordance with 37 C.F.R. 1.98(d); however, copies will be furnished on request.

Respectfully submitted,

Kelly J. Williamson

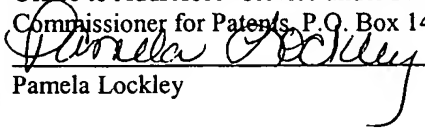
Kelly J. Williamson
 Patent Agent
 Registration No. 47,179

Customer No. 29312
ALSTON & BIRD LLP
 Bank of America Plaza
 101 South Tryon Street, Suite 4000
 Charlotte, NC 28280-4000
 Tel Raleigh Office (919) 862-2200
 Fax Raleigh Office (919) 862-2260

COPY

"Express Mail" mailing label number EL868642415US
Date of Deposit January 5, 2004

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450


Pamela Lockley

RTA01/2147969v1

COPY

| | | | | | | |
|---|---|----|---|--------------------------|--|-----------------------|
| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i> | | | | Complete if Known | | |
| | | | | Application Number | | To be Assigned |
| | | | | Filing Date | | Concurrently Herewith |
| | | | | First Named Inventor | | Tuomanen |
| | | | | Group Art Unit | | To be Assigned |
| | | | | Examiner Name | | To be Assigned |
| Sheet | 1 | of | 2 | Attorney Docket Number | | 044158/273011 |

| U. S. PATENT DOCUMENTS | | | | | | | |
|------------------------|-----------------------|--------------------------------|--|--------------------------------------|--|--|---|
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document Number | | Kind Code ² (if known) | Name of Patentee or Applicant Of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages of Relevant Figures Appear |
| | 1 | US-4,925,673 | | | STEINER <i>et al.</i> | 05-15-1990 | |
| | 2 | US-5,013,556 | | | WOODLE <i>et al.</i> | 05-07-1991 | |
| | 3 | US-5,284,656 | | | PLATZ <i>et al.</i> | 02-08-1994 | |
| | 4 | US-5,451,569 | | | WONG <i>et al.</i> | 09-15-1995 | |
| | 5 | US-6,245,335 | | | MASURE <i>et al.</i> | 06-12-2001 | |
| | 6 | US-6,291,654 | | | HOSTETTER <i>et al.</i> | 09-18-2001 | |
| | 7 | US-6,420,135 | | | KUNSCH <i>et al.</i> | 07-16-2002 | |
| | 8 | US-6,503,511 | | | WIZEMANN <i>et al.</i> | 01-07-2003 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | | |
|--------------------------|----------|--|----------|--|--------------------------------------|--|--|--|----------------|
| Examiner Initials | Cite No. | Foreign Patent Document Office ³ Number ⁴ | | | Kind Code (if known) ⁵ | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | 9 | EP | 401,384 | | | ISHIKAWA, R. | 03-13-1996 | | |
| | 10 | WO | 97/41151 | | | MASURE, H., <i>et al.</i> | 11-06-1997 | 1-53 | |
| | 11 | WO | 97/09994 | | | BRILES, D., <i>et al.</i> | 03-20-1997 | 1-28, 40, 53 | |
| | 12 | WO | 98/21337 | | | HOSTETTER, M., <i>et al.</i> | 05-22-1998 | 1-53 | |
| | 13 | WO | 98/18930 | | | KUNSCH, C., <i>et al.</i> | 05-07-1998 | 1-53 | |
| | 14 | WO | 99/51187 | | | TUOMANEN, E., <i>et al.</i> | 10-14-1999 | 1-53 | |
| | 15 | WO | 99/51266 | | | WIZEMANN, T., <i>et al.</i> | 10-14-1999 | 1-53 | |
| | | | | | | | | | |

| OTHER DOCUMENTS | | | |
|-------------------|----------|---|---|
| Examiner Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published. | T |
| | 16 | ADJEL <i>et al.</i> , "Pulmonary delivery of peptide drugs: effect of particle size on bioavailability of leuprolide acetate in healthy male volunteers" <i>Pharma Res.</i> , 1990, pp. 565-569, Vol. 7. | |

¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

⁶ Applicant is to place a check mark here if English language Translation is attached.

| | | | | | |
|---|-------------|---|---|--------------------------|--|
| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i> | | | | Complete if Known | |
| | | | | Application Number | |
| | | | | Filing Date | |
| | | | | First Named Inventor | |
| | | | | Group Art Unit | |
| | | | | To be Assigned | |
| | | | | To be Assigned | |
| | | | | To be Assigned | |
| Sheet | 2 | of | 2 | Attorney Docket Number | |
| 044158/273011 | | | | | |
| OTHER DOCUMENTS | | | | | |
| Examiner Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published. | | | |
| | 17 | CUNDELL <i>et al.</i> , "Receptor specificity of adherence of Streptococcus pneumoniae to human type II pneumocytes and vascular endothelial cells in vitro," <i>Micro Pathog.</i> , 1994, pp. 361-374, Vol. 17. | | | |
| | 18 | CUNDELL <i>et al.</i> , "Streptococcus pneumoniae anchor to activated human cells by the receptor for platelet activating factor," <i>Nature</i> , 1995, pp. 435-438, Vol. 377. | | | |
| | 19 | HAMMERSCHMIDT <i>et al.</i> , "SpsA, a novel pneumococcal surface protein with specific binding to secretory immunoglobulin A and secretory component," <i>Mol. Microbiol.</i> , 1997, pp. 1113-1124, Vol. 25. | | | |
| | 20 | IDANPAAN-HEIKKELA I., <i>et al.</i> , "Oligosaccharides interfere with the establishment and progression of experimental pneumococcal pneumonia," <i>J. Infect. Dis.</i> , 1997, pp. 704-712, Vol. 176. | | | |
| | 21 | LANGER, "New methods of drug delivery," <i>Science</i> , pp. 1527-1533, Vol. 249. | | | |
| | 22 | MALIK <i>et al.</i> , "Polyethylene glycol (PEG) modified granulocyte-macrophage colony-stimulating factor (GM-CSF) with conserved biological activity," <i>Exp. Hematol.</i> , 1992, pp. 1028-1035, Vol. 20. | | | |
| | 23 | MCDANIEL <i>et al.</i> , "Molecular localization of variable and conserved regions of <i>pspA</i> and identification of additional <i>pspA</i> homologous sequences in Streptococcus pneumoniae," <i>Microb. Pathog.</i> , 1992, pp. 261-269, Vol. 13. | | | |
| | 24 | NEWMARK <i>et al.</i> , "J. Appl. Biochem.", 1982, pp. 185-189, Vol. 4. | | | |
| | 25 | REMINGTON'S PHARMACEUTICAL SCIENCES, 18 th ed., 1990, Chap. 89, Mack Publishing Co., Easton, PA. | | | |
| | 26 | RONDA <i>et al.</i> , "Biological role of the pneumococcal amidase. Cloning of <i>thelytA</i> gene in Streptococcus pneumoniae," <i>Eur. J. Biochem.</i> , 1987, pp. 621-624, Vol. 164. | | | |
| | 27 | ROSENOW <i>et al.</i> , "Contribution of novel choline-binding proteins to adherence, colonization and immunogenicity of Streptococcus pneumoniae," <i>Mol. Microbiol.</i> , 1997, p. 819, Vol. 25. | | | |
| | 28 | SHAPIRO <i>et al.</i> , "The protective efficacy of polyvalent pneumococcal polysaccharide vaccine," <i>NEJM</i> , 1991, p. 1453, Vol. 325. | | | |
| | 29 | TUOMANEN <i>et al.</i> , "Phenotypic tolerance: the search for beta-lactam antibiotics that kill nongrowing bacteria," <i>Rev. Infect. Dis.</i> , 1986, p. 279, Vol. 8, Suppl. 3. | | | |
| | 30 | TUOMANEN <i>et al.</i> , "Microbiological and clinical significance of a new property of defective lysis in clinical strains of pneumococci," <i>J. Infect. Dis.</i> , 1988, pp. 36-43, Vol. 158. | | | |
| | 31 | TUOMANEN <i>et al.</i> , "Pathogenesis of pneumococcal infection," <i>NEJM</i> , 1995, pp. 1280, Vol. 322. | | | |
| | 32 | WEARLY, <i>Crit. Rev. in Their Drug Carrier System</i> , 1991, pp. 333, Vol. 8. | | | |
| Examiner Signature | | | | Date Considered | |

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.